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ABSTRACT

The classroom behavior of 92 black and white sixth graders was observed in a desegregated urban school. Observations were made once a week during a full semester. The sex and race of each student observed and of his or her interactants were noted. Observers also coded characteristics of observed students' interactive behaviors: the tone (positive, negative, or neutral), the form (physical or other), the source (the subject, interactant, or both), and the task orientation (whether or not the behavior was related to academic tasks). Students interacted primarily with others of their own race and sex although gender aggregation was less pronounced among blacks than among whites. Boys interacted more across racial lines than did girls. Blacks were almost twice as likely as whites to be the source of cross-racial interactions. Students' interracial behavior was generally not different in quality from intraracial behavior, although some potentially important differences between black and white children's behavior styles were observed. These conclusions were reinforced by a parallel study of sociometric choice conducted in the same school. (Author/MK)

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Race and Gender Barriers: Preadolescent Peer Beahvior in Academic Classrooms

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Abstract

The classroom behavior of 92 black and white sixth graders was observed in an urban desegregated school. Observations were made once a week in each classroom during a full semester using a time sampling method. In addition to noting the race and sex of the student being observed and his or her interactants, observers coded the behavior's tone (positive, neutral, or negative), form (physical vs. all others), source (the subject, interactant or both), and task orientation (whether or not the behavior was related to academic tasks). As predicted, students interacted primarily with others of their own race and sex although gender aggregation was less pronounced for blacks than for whites. Also, as predicted, boys interacted more across racial lines than girls. Interestingly, blacks were almost twice as likely as whites to be the source of cross-race interactions. A parallel study of sociometric choice conducted in the same school reinforced virtually all of the above conclusions. Analysis of the quality of peer-directed behaviors (tone, form, etc.) suggested some potentially important differences between black and white children's behavioral styles. However, interracial behavior was generally not different in quality from intraracial behavior.

Despite a history of controversy and occasionally bitter local resistance, interracial schooling is increasingly becoming a fact of American life (A. Campbell, 1971; Holsendorf, 1976). Surprisingly little is known, however, about the nature or extent of intergroup behavior in our desegregated schools. Traditional sociometric studies, in which students are asked to name three or four of their best friends or preferred partners, almost universally have indicated a marked preference for children of one's own race and sex. (See E. Cohen, 1975, and Schofield, in press, for reviews.) However, nominations of a limited number of peers provide an extremely conservative index of interracial acceptance, especially when race is associated as it often is with differences in social class and academic status, as well as a host of divergent experiences and influences. In a contrasting type of sociometric study, Singleton and Asher (1977, 1979) asked children to rate each of their classmates independently for desirability as partners in work and social situations and found that race matching accounted for less than 1 percent of the variance.

Behavioral studies of intergroup relations in desegregated schools, virtually unheard of 10 years ago, have begun to accumulate at an accelerating rate (P. Campbell, Note 1; Francis & Schofield, Note 2; Rogers & Miller, Note, 3; Schofield, 1979; Schofield & Sagar, 1977; Shaw, 1973; Silverman & Shaw; 1973; Singleton &

Asher, 1977). Most of these studies observed behavior in relatively unstructured contexts (e.g., school cafeteria, free period) in which students are especially likely to seek out their closest friends. Consequently, these studies also provide a very conservative index of intergroup acceptance. The lone exception is the behavioral portion of the Singleton and Asher (1977) study, which recorded student behavior in third-grade academic classrooms and found a much higher rate of interracial interaction than the other studies did.

Again with the exception of the research by Singleton and Asher (1977), interpretability of the published behavioral studies is limited by their exclusive focus on the amount of intergroup behavior, without any attention being given to its nature. Yet, some indication of interaction type is necessary for an understanding of the experiences that children have in desegregated schools and of the impact of these experiences upon their attitudes and behavior. For example, the child who is the butt of jokes and teasing may be much more threatened by the situation than the child who receives little attention from others.

Studies of peer relationships in interracial schools also have tended to disregard the role of gender in mediating children's social outcomes. Considering the potent role of gender-identity in interpersonal association and experience, it is reasonable to suppose that sex as well as race will play a role in children's desegregation experiences. There are, for example, some indications that males interact across racial lines more readily than females do) Singleton and Asher 1977; Schofield & Sagar, 1977).

To date there have been no long-term; systematically quantified observational studies addressing the joint impact of race and sex upon student peer interactions. Singleton and Asher's (1977) interaction data were based on just two observation sessions per classroom. The researchers recorded interactions which crossed race and gender lines simultaneously but there were too few of these to permit a statistical analysis. Yet, given a goal of reasonable social integration across both race and gender barriers, the very infrequency of such interactions points to the importance of documenting the nature of those which do occur.

Objectives

The study reported here was designed to fill some of the gaps in the literature outlined above by assessing peer behaviors among black and white boys and girls in their sixth-grade classrooms. We chose academic classes because of their importance in the students' lives (at least in terms of the amount of time spent in them) and because of the potential opportunity they presented to observe relatively frequent intergroup interactions. We anticipated that, as in previous studies, the students would interact primarily with same-sex peers and secondarily with same-race peers, and that boys would interact across racial lines more often than girls.

In addition to exploring the amount of cross-race peer interaction which occurs, the study was also designed to assess the quality of interracial and intraracial behavior. Decisions about which aspects of behavior to code were guided by prior qualitative analyses of those characteristics of behavior which are salient to

other children and thus affect the evolution of intergroup relations (Schofield, in press). First, and most importantly, we decided to code the affective tone of peer interactions. Since many task-oriented classroom interactions seem to involve little obvious affect, we used a more differentiated scheme than that employed by Singleton and Asher (1977), coding neutral as well as positive and negative behaviors. Secondly, we wished to explore the extent to which peer behaviors were task-related, since group differences in task orientation seem to be implied by traditional racial stereotypes. It seemed quite possible that the relative frequency of task-related interactions within and between the various race-sex groups might differ in theoretically interesting ways. Finally, we noted the form of observed peer interactions, with particular emphasis upon recording physical behaviors, both because of the possibility of group differences in the rate of such behaviors (e.g., Hartup, 1974) and because of their likely salience to the students.

Another goal of the study was to determine the extent to which attraction/avoidance tendencies between the various race-sex groups were symmetrical or asymmetrical. We wondered, for example, whether black boys were more likely to initiate interactions with white boys than vice versa, and whether black girls, who have been characterized by some researchers as finding desegregation particularly stressful (St. John, 1975) were more likely to avoid, or be avoided by, members of other groups. Because peer behaviors are so often mutual (friendly comments tend to elicit friendly comments, etc.), one ordinarily cannot determine , within a brief observation interval, who has

initiated a particular ongoing interaction. Consequently, we approached the question indirectly, noting which person or persons were actively engaging in the interaction at the moment of observation, and relying upon the cumulative record to detect any asymmetries in relationship among the four race-sex groups.

As a means of cross-validating and explicating the patterns found in our behavioral data, we also administered a sociometric questionnaire in which students rated each of their classmates as prospective social or work partners. The ratings can be considered to represent real rather than hypothetical partner preference patterns since the students anticipated that these ratings would be used to determine actual partner assignments.

We did not construe the sociometric study as a direct replication of the more laborious behavioral study since it reflects the students' unilateral preferences. These preferences, though, can be related to the observed interaction action patterns and guide us in their interpretation. For example, private sociometric choices do not directly induce reciprocation as overt peer-directed behaviors often do; consequently, they should be more sensitive than the interaction data to any asymmetry in the relationships among the race/sex groups.

Complete details on the design of the sociometric study and other portions of its results have been presented elsewhere (Schofield & Snyder, Note 4). However, brief mention is made here of the parts of the sociometric study relevant to the behavioral research that is the focus of this report since (a) the findings of the two studies are strikingly paralled in spite of the differences in methodology and the

only partial overlap in subjects and (b) the sociometric research allows exploration of some questions raised but left unanswered by the behavioral data.

Method

The Research Site

Wexler Middle School (a pseudonym), located in the urban northeast, serves approximately 1800 sixth, seventh, and eighth graders from 11 different feeder schools. About two-thirds of these students are black. Although the school district is characterized by a high degree of residential and educational segregation, Wexler's main building is located in a largely non-residential area which cannot be characterized as either black or white "turf."

The school has been interracial ever since it opened in 1975[1], so neither its black nor its white students have been faced with the task of finding a place in a pre-existing social system dominated by the other race. The students are, however, faced with the task of constructing new social networks, since they are likely to find few if any of their former friends and classmates in their new classes. For many of these students, Wexler provides the first significant interracial contact.[2]

Most of Wexler's white students come from middle- or upper-class neighborhoods, whereas the black students tend to come from working-class or economically depressed neighborhoods. Furthermore, the white students have, as a group, a clear academic advantage over most of their black classmates. For example, whites as a group

consistently scored approximately one standard deviation above their black peers on a variety of standardized tests.

Selection of Classes and Students for Observation

Suitability of class settings for study was determined on the basis of informal observation of class sessions and/or a simple teacher questionnaire. We sought to study those sixth-grade classes in which students had a reasonable opportunity to interact and some freedom of choice concerning those with whom they would interact. We further limited our observations to student groups containing at least 3 students from each of the 4 possible race-sex categories. Under these twin criteria, 6 of Wexler's 20 sixth-grade student groups were selected for observation.

Within each selected group we observed students from each of the 4 race-sex categories. If there were only 3 or 4 students in a given category we observed all of them; where there were more, we randomly selected 4. The final sample consisted of 23 white males, 24 black males, 21 white females, and 24 black females. Each student was observed in at least 2 different class settings. (Students at Wexler stay with the same peers as they rotate among teachers for their academic subjects.)

Behavioral Study Design and Procedure

Three graduate student observers--a white male, a white female, and a black female--were randomly assigned to student groups. Following training in the use of the behavior coding system, each observer spent approximately 20 class periods coding peer interactions in each of the student groups assigned to her or him. A 15-second

observation/coding cycle was employed, with 5 seconds for observing a designated student and 10 seconds for coding any peer behavior and locating the next student in the randomized sequence. If a peer-oriented behavior was emitted by, or directed toward, the designated student within the 5-second observation interval, the observer recorded (1) the race and sex of the interacting students, (2) the immediate source of the behavior (subject, interactant, or both), (3) tone (positive, neutral, or negative), (4) form (physical or other), and (5) task orientation (whether or not the behavior was related to an academic or teacher-sanctioned task).

Interobserver Agreement

Usually, only one observer was present in a classroom at any given time. Occasionally, however, two observers coded simultaneously to permit a check on interobserver coding agreement. We used as our measure of agreement Cohen's kappa, which excludes expected chance agreement (J. Cohen, 1960). Even by this conservative index, a high level of agreement was achieved in recording the race-sex category of the peer interactant. With trials in which only one observer recorded an interaction counted as disagreements, the mean agreement (k) on the race-sex category of the interactant was .81. When only trials in which both observers saw a peer interactant are considered, the mean kappa for the interactant race-sex code was .90.

Measures of agreement in coding the nature of observed interactions were based solely upon trials in which both observers coded the same interactant (as indicated by agreement on the race-sex code). The single trial-level kappas for the behavior categories were

considerably lower than those for interactant race and sex, ranging from .20 to .72, with an overall mean of .44.[3] These relatively low indices simply indicate that the behavior coding was not sufficiently reliable to permit inferences about any single behavioral episode; such was not a goal of this study. The kappas represent, rather, a substantial "true score" component in the trial level data which can be presumed to be systematic and cumulative over repeated observations (in contrast to the error component which is assumed to be random and non-cumulative; see Hartmann, 1977). Relatively low score reliability increases the chance that true, but modest, relationships will be overlooked (i.e., statistically non-significant) because the error variance will be large relative to the effect variance. On the other hand, a statistically significant F - value points by definition to a reliable effect since the systematic effect variance is large even in relation to the error variance (McNemar, 1969). Indeed, the reliabilities of the statistically significant effects to be reported here range from .78 to .999.

Sociometric Procedure

Data were collected from all 10 sixth-grade student groups housed in the main school building. Data from one of these groups was excluded from the analysis because there were no white females in the class. The final sample consisted of 36 white males, 49 black males, 27 white females, and 51 black females, representing 83 percent of the students enrolled in the nine remaining groups. The students were told that their classes had been selected to evaluate a new learning method. The investigator explained that this method provided a small

amount of free time for the students to talk with their friends and that he needed to know with whom they wanted to spend this social time. The children then received class rosters and indicated on 7-point scales how much they would like to spend the social time with each of their classmates.

Then the experimenter said that the class would be studying the mathematical concept of correlation, and he explained the concept briefly, emphasizing that math ability was strongly related to success in learning about correlations. He said that the students would work in pairs and that, since he could not give the students grades for doing well, he would give prizes (e.g., T-shirts, candy, and posters) if their pair succeeded on the problems. The reward interdependence of pairs of students was emphasized. The students then indicated how much they wanted each of their classmates as work partners, using 7-point scales identical to those used previously.

RESULTS

Between late January and early June, 1979, we recorded a total of 3028 peer interactions over 13,771 five-second coding intervals. This large body of data was reduced to a series of cumulative scores for each subject. First, and most simply, we calculated the number of peer interactions recorded for each subject, relative to the total number of observations of that subject.[4] Second, we counted interactions with each of the four race-sex peer groups as a proportion of each subject's total peer interactions. Finally, we

counted each of several interaction types as proportions of each subject's total set of interactions with each of the four race-sex groups.

Since there were more black than white students in the classes we observed (and thus more black than white potential interactants), we calculated for each observed student not only the proportion of peer interactions involving interactants from each of the four race-sex groups (observed rates), but also the mean proportion of all available interactants belonging to the corresponding race-sex groups (expected rates). Adjusted rates were then expressed as the ratio of observed to expected rates. Interestingly, the mean correlation (averaged across interactant categories) between the students' expected and observed rates was only .09 whereas that between the expected and adjusted rates was - .26.

The students in this study, then, appeared to interact primarily within small subgroups whose composition had little to do with that of the class in which they were observed. (Ziomek, Wilson, and Ebmeier, Note 5, found a similar lack of relationship between class composition and friendship choice in a sociometric study). This implies, for example, that boys who prefer to interact with other boys can be expected to form small, mostly male, circles of primary interactants whether the total class composition is 30 or 70 percent male. Even if the psychology is similar in these two cases, would obviously diverge sharply, telling us more about classroom composition than about the interaction tendencies of the boys. Consequently, we decided to use unadjusted rates as having the more straightforward interpretation.

In the sociometric portion of the study, each student's ratings of his or her classmates were converted to z-scores, standardized independently for each individual rater. For purposes of comparison with the behavioral study, analyses were performed on the mean z ratings given by each student to members of each race-sex category.

Interaction Patterns

Interaction rate analyses employed a repeated measures analysis of variance with Student Groups, Subject Race, and Subject Sex as grouping factors. Interactant Race and Interactant Sex were treated as trial factors. The sociometric analysis employed a similar design with the addition of Interaction Type (social or work partner ratings) as an additional trial factor.

Table 1 shows the distribution of each subject group's interactions with children in the four race-sex categories. As anticipated, the peer interactions were predominantly ingroup, with 63 percent* of all coded interactions occurring between children of the same race and sex. (In contrast, under the unlikely null hypothesis of purely random selection of interactants, only 22 percent of the interactions would have been expected to be within both race and sex.) As we expected, gender was the more potent grouping factor, as indicated by the large Subject Sex x Interactant Sex effect, $F(1, 68) = 1748.44$, $p < .001$. This effect reflects the fact that 88 percent of the recorded peer interactions occurred between same-sexed pairs, in contrast to the 48 percent expected under a random pattern. The race grouping tendency (Subject Race x Interactant Race) was less pronounced than the sex grouping effect, but very clear nevertheless,

$F(1, 68) = 99.98$, $p < .001$, with 70 percent of the total interactions occurring between children of the same race, compared to a calculated chance expectancy of 50 percent. Omega-squared analyses (Hays, 1973) estimate that sex matching (the Subject Sex x Interactant Sex interaction) accounted for approximately 22.9% of the variance in the interaction rate scores and that race matching accounted for approximately 7.4%. The sociometric analysis pointed to a similar pattern with the Subject Sex x Interactant Sex interaction, $p(1, 155) = 546.68$, $p < .001$, representing a clear preference for same-sex partners, and the Subject Race x Interactant Race interactions, $F(1, 55) = 41.36$, $p < .001$, representing a lesser, but still substantial, preference for same race partners.

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Insert Table 1 about here

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Also as predicted, behavioral interactions among boys were somewhat more likely than those among girls to be interracial, 31 percent vs. 26 percent, $t(68) = 2.87$, $p < .01$. The corresponding planned contrast in the sociometric data was also significant, $t(155) = 2.30$, $p < .02$, but examination of the cell means indicated that the apparent tendency for females to prefer same-race partners to a greater extent than boys do is accounted for almost entirely by the tendency of the white girls, in particular, to express a remarkably strong preference for partners of their own race and sex.

The gender barrier appears to have been somewhat less pronounced among the black students than among the whites. In the behavioral

analysis, a significant Subject Race x Subject Sex x Interactant Sex effect, $F(1, 68) = 16.63$, $p < .001$, primarily reflects the fact that interactions among black students were more likely than those among white students to cross gender lines, 14.7 vs. 6.5 percent respectively. The same three-way interaction in the sociometric data, $F(12, 155 = 11.50$, $p < .001$, confirmed that gender aggregation tendencies were less pronounded among black than white subjects.

Interaction Source

Given that the focal student (subject) was involved in interactions with classmates (interactants) of a given race-sex category, was that student relatively more or less likely than the interactants to be the emitter (source) of the coded behaviors? The source analysis utilized the same repeated measures design as the interaction rate analysis, with the addition of Source (subject, interactant, or mutual) as a trial factor. Only those subjects who were observed interacting with members of all four race-sex categories were included in the analysis. The resulting sample consisted of 14 white males, 14 black males, 10 white females, and 11 black females.

A statistically significant Source x Subject Race effect, $F(2, 90) = 5.43$. $p < .01$, reflects the fact that black subjects were more likely to be recorded as the sources of peer interactions than white subjects were, and a comparable Interactant Race x Source effect, $F(2, 90) = 3.70$ $p < .03$, represents a tendency for black interactants to be relatively more likely than white interactants to be recorded as sources. Combining the data from all recorded interracial interactions, the collapsed means indicate that whites were sources in

18 percent of the interactions, and blacks in 38 percent; 44 percent of the interracial interactions were coded "mutual." Similarly, the main effect of Interactant Race, $F(1, 155) = 41.36$, $p < .001$, in the sociometric analysis resulted from a greater same-race preference by white than black students. [These findings do not result from a general tendency for blacks to emit more peer behaviors than whites (see Footnote 3)].

The previously noted tendency for white females to be particularly ingroup in their sociometric choices also finds a parallel in the source analysis of the behavioral data. Table 2 reveals that white females, whether observed as subjects or interactants, were generally more likely to be coded recipients than sources of intergroup behavior.

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Insert Table 2 about here

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Tone

Observers characterized the tone of each recorded peer interaction as (1) positive, (2) neutral/ambiguous, or (3) negative/aggressive. Facial expressions, verbal statements, and overt motor behaviors which were negative in appearance (from a conventional, middle-class point of view) were coded "negative/aggressive" regardless of the actor's presumed intent. Thus, physical blows, verbal or non-verbal threats, obscene gestures, and insults were all regarded "negative/aggressive," even when the observers suspected that the specific behavior being coded was playful or meant in jest. This

approach was deemed necessary because of the unreliable relationship between affect and overt behaviors and because of the resulting potential for undefined and uncontrolled biases in the observers' subjective inference processes. In the present analysis, then, differences in "Tone" do not necessarily indicate differences on an effective or friendly/unfriendly dimension; they do reflect differences in overt interactive style among the various subject groups.

The analysis of interaction Tone, and all subsequent behavioral analyses, were based only upon those behaviors emitted by the subjects (i.e., those behaviors in which Source was coded "subject" or "mutual"). Subjects who did not direct peer behaviors toward members of all 4 race-sex groups were excluded from the remaining analyses of proportion scores, leaving a sample of 12 white males, 14 black males, 7 white females, and 10 black females.[5]

The principal finding is a Subject Race x Tone effect, $F(2, 78) = 9.12$ $p < .001$, reflecting the fact that the white subjects' peer behaviors were coded positive proportionately more often than those of the black subjects, 68 percent vs. 51 percent respectively. The black students' peer behaviors were not any more likely than those of the white students coded negative, however, 7 percent vs. 8 percent respectively. There were no Tone effects involving Interactant Race. That is to say, although there was some difference in the overall tone of peer behaviors by black and white subjects, neither group seems to have responded differentially to black and white peers on this dimension.

The repeated measures analysis of variance also revealed a modest Subject Sex x Interactant Sex x Tone effect, $F(2, 78) = 3.61$, $p < .05$. The within-sex proportion of negative or aggressive interactions was quite low among the boys and near zero among the girls, 4 percent and 1 percent, respectively. In contrast, 12 percent of the cross-sex interactions were coded negative/aggressive.

Task Orientation

A repeated measures ANOVA revealed no Subject Race effects in Task Orientation, but id did indicate an Interactnt Race x Task Orientation effect, such that peer behaviors involving white interactants were more likely to be coded "task-related" than were those involving black interactants, $F(2, 78 = 5.36$ $p < .01$. Similarly, the sociometric analysis found that white students received relatrively higher ratings as potential partners on the rewarded academic task than in the social situation, $F(1, 155) = 72.59$, $p < .001$.

Physically Aggressive Behaviors

We took a special interest in those peer behaviors which were coded both "physical" and "negative/aggressive," hereinafter referred to as "physically aggressive."[6] As indicated previously, observers used a broad, minimally evaluative definition of "negative/aggressive." "Physical" was also broadly defined to include implied or threatened physical contact as well as actual contact. Even with these broad definitions, the number of interactions coded physically aggressive was negligible for each of the four subject groups, with the mean frequency per subject being well under one in

each case. Even occasionl physically aggressive behaviors, however, are likely to be quite salient to those who observe or experience them. Consequently, we performed a 6 x 2 x 2 x 2 x 2 (Class x Subject Race x Subject Sex x Interactant Race x Interactantr Sex) analysis of variance on the raw frequencies of the subjects' physically aggressive behaviors toward members of each race-sex group.

Black students engaged in physically aggressive peer behaviors more frequently than white students did $F(1, 68) = 13.99$, $p < .001$, and males engaged in such behaviors somewhat more often than females did, $F(1, 68) = 6.9$, $p < .02$. A marginal Subject Race x Subject Sex interaction, $F(1, 68) = 3.69$, $p < .06$, suggested some tendency for black males to be especially likely to engage in such behaviors.

There were no statistically significant effects involving Interactant Race to suggest that subjects discriminated racially in emitting physically aggressive behaviors. In accordance with widely accepted cultural norms, however, physically aggressive behaviors were directed less often toward female than toward male interactants, $F(1, 69) = 6.94$, $p < .01$.[7]

DISCUSSION

The data reported here clearly indicate the overriding importance of gender as a grouping variable among these sixth grade students. They further document the noticeable, though less pronounced, impact of race (or correlated factors) upon interactant choice. This finding is consistent with previous studies assessing the impact of gender and race upon interaction or friendship patterns among children of junior high school age or younger (e.g., P. Campbell, Note 1; Krenkel, Note

6; St. John & Lewis, 1975; Schofield & Sagar, 1977; Singleton & Asher, 1977, 1979).

The observed racial clustering cannot be attributed solely to maintenance of prior friendships established to segregated neighborhoods and elementary schools since most sixth graders at Wexler found themselves in classrooms with few, if any, of their old friends. Prior friendship also fails to explain the apparent asymmetry that we found in black-white relationships. Black students showed less pronounced ingrouping tendencies than whites on the sociometric questionnaire, and they tended to be the more active participants in those interracial interactions which did take place. As one black female student commented:

> Some white kids act conceited. They don't want to talk to you. . . . You be talking to them and they'll talk to you for about a minute or so, and then they'll go over to their other friends and act like they don't know you (Schofield, in press).

The racial aggregation at Wexler may well have been exacerbated by societal norms and generalized group images. We believe, however, that these observed departures from true social integration are direct and important reflections of the very real gap between the average socio-economic achievement levels of Wexler's black and white students. Thus, black student willingness to work with whites on the jointly rewarded academic tasks was not generally reciprocated in the sociometric ratings by the white students. Furthermore, peer behaviors directed toward white interactants were more often task-related than those directed toward blacks. (E. Cohen, 1980, and Slavin, 1980 have discussed techniques for mitigating the effects of

In-grouping tendencies may also be exacerbated by behavioral style differences arising from cultural and socio-economic factors. For example, although the black students' peer behaviors were no more negative than those of white students overall, we did find a relatively higher frequency of implied or actual physically aggressive behavior on the part of blacks even though the absolute frequency of such behaviors in these classroom settings was very low. We must stress again that behaviors coded as physically aggressive were not necessarily negative in intent, and indeed often appeared to the observers to be playful. Unfortunately, we did not feel that we could reliably differentiate intent.

The difficulty of interpreting the intent behind many episodes which have at least some overtly aggressive elements can complicate intergroup relations. An earlier experimental study with sixth grade boys in this same school (Sagar & Schofield, in press) found that white boys often interpret ambiguously aggressive peer behaviors more negatively than black boys do, reading more threat and hostile intent into them. In marked contrast to the black subjects in that study, the white subjects assumed that the ambiguously aggressive actors were stronger than their targets and that the targets were fearful. What white students saw as vaguely threatening displays of physical strength, the black students apparently interpreted as manifestations of an active or assertive style.

We did not find in the present study any evidence that black or white students modified their tone or style according to the race of the children with whom they interacted. One practical implication of

the black students' behavioral consistency, though, is that the white students experienced proportionately fewer conventionally positive behaviors and proportionately more aggressive behaviors from their black classmates than from their white classmates. These possibly misunderstood or unwelcome stylistic differences may have combined with the previously discussed academic gap to encourage the white aloofness suggested by the asymmetry in the interaction source data.

In contrast to the highly politicized issue of racial desegregation, the very clear gender barrier in preadolescent children's relationships rarely occasions more than passing notice among either researchers or educators, perhaps because of the belief that it is both harmless and temporary for whereas racial aggregation tends to remain high throughout the school years, gender isolation usually peaks during the late elementary and early junior high school years (Hartup, 1970; Schofield, Note 7). A previous study of patterns at Wexler is consistent with that analysis, in that we found somewhat less gender aggregation among the eighth graders than among the sixth graders (Schofield & Sagar, 1977).

Romantic and sexual attraction are certainly major components of the increase in male-female interaction over time. Ironically, the students' emerging romantic interests, together with the common tendency to read such interests into any girl-boy relationship, may inhibit task-oriented cross-sex interaction during preadolescence. For example, Schofield (in press) reported that some students avoided selecting opposite-sex classmates as work partners for fear that the relationship would be misinterpreted as a romantic one. The

awkwardness of cross-sex interaction among preadolescents appears to be reflected in our quantitative analysis of peer interaction tone: Cross-sex interactions were proportionately more likely than within-sex interactions to be coded "negative." P. Campbell (Note 1), using a very different coding scheme in a tri-ethnic elementary school, obtained a similar finding.

Interestingly, consistent with Singleton and Asher's (1979) sociometric finding, black students in this study interacted across gender lines more freely than white students did. An investigation of factors contributing to the apparently lesser sex bias in black children[8] might yield insights which could contribute to healthier cross-sex relationship among all children. For despite the inevitable increase in cross-sex attraction over time an important social lesson seems to us to have been lost if young men and women must come to know each other as love interests without first having discovered each other as peers.

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FOOTNOTES

1. Descriptions of Wexler in earlier published reports stress its unusual character as a positively structured interracial school. By the time the present research was conducted, however, many of the schools's special attributes had been lost or downgraded.

2. The low interobserver agreement occurred despite training and reflects the difficulty of characterizing constantly fluctuating peer behaviors observed for just a few seconds from across a full classroom. Although co-observers stood near each other, discussion revealed that disagreements often resulted from slightly different viewing angles.

3. Although we were interested primarily in the patterning of intergroup interactions, we needed to know whether our proportion scores were based upon similar or grossly different overall interpersonal activity rates by each of the 4 race-sex groups. Analysis of the subjects' overall peer interaction totals showed a small but statistically significant Subject Sex effect, $F(1, 68) = 6.87$, $p < .02$, reflecting a somewhat higher interaction rate for males than for females. The Subject Race effect was not significant, $F(1, 68) = 2,86$; and there was no interaction between Subject Race and Subject Sex, $F(1, 68) < 1$.

4. Reported percentages and proportions are actually collapsed means, with the component cells weighted equally.

5. Most of the sample decrement resulted from students who had not been observed in cross-sex interaction with black and/or white peers. Separate analyses of within-sex interactions included most of the original sample and were generally consistent with the interracial patterns reported here.

6. A separate exploratory analysis of positive physical interactions (e.g., patting a peer on the back, huddling together) revealed no clear patterns.

7. This finding is not a mere reflection of the tendency of males, the more physically aggressive gender group, to interact primarily with other males. In fact, when physically aggressive behaviors were analyzed as proportions of all behaviors directed toward each interactant group, this same Interactant Sex effect was the only significant finding.

8. Analysis of peer interactions in academically accelerated eighth-grade classes at Wexler did not replicate this pattern. It is not clear whether the absence of a black-white difference in sex bias resulted from the fact that the students were older or from the highly select nature of the population.

Table 1

Distribution of Peer Interactions (Proportions)
over Interactant Categories

Subject Sex	Subject Race	Interactant Group			
		WM	BM	WF	BF
Male	White (WM)	.57 (.16)	.35 (.28)	.04 (.22)	.05 (.34)
	Black (BM)	.20 (.20)	.64 (.24)	.04 (.22)	.11 (.35)
Famale	White (WF)	.05 (.20)	.03 (.28)	.65 (.17)	.28 (.35)
	Black (BF)	.04 (.20)	.12 (.28)	.18 (.22)	.66 (.30)

Note. Figures in parentheses indicate the proportions expected under the assumption of random interactant choice within each classroom. The proportions are systematically lowered in the case of ingroup interactions by the fact that subjects cannot be their own interactants.

Table 2

White Females' Roles in Intergroup Interactions

White Females' Observation Status	White Females' Behavioral Role	Interacting Group: White Males	Interacting Group: Black Males	Interacting Group: Black Females
Subject	Source	.16	.23	.13[a]
	Recipient	.37	.35	.37
		N=10	N=10	N=10
Interactant	Source	.11[a]	.10[b]	.23
	Recipient	.43	.60	.37
		N=14	N=14	N=11

Note. Figures are proportion scores averaged across individual members of the designated subject race-sex category.

[a] White females were significantly less often sources than recipients of peer behaviors in these cells, $p < .05$.

[b] White females were significantly less often sources than recipients of peer behaviors in this cell, $p < .001$.